



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,433	01/18/2002	Geoffrey Hamilton White	PAT-1285DIV	5904

7590 06/05/2003  
Raymond Sun  
Law Offices of Raymond Sun  
12420 Woodhall Way  
Tustin, CA 92782

EXAMINER

PELLEGRINO, BRIAN E

ART UNIT	PAPER NUMBER
----------	--------------

3738

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

EC

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/051,433	WHITE ET AL.	
	Examiner	Art Unit	
	Brian E Pellegrino	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3,4</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **48m**, **50m**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: **52m**. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "cells having exactly twelve bends and being non-symmetrical about the longitudinal axis," "twelve bends comprise a spring element," "a central bottom bend."

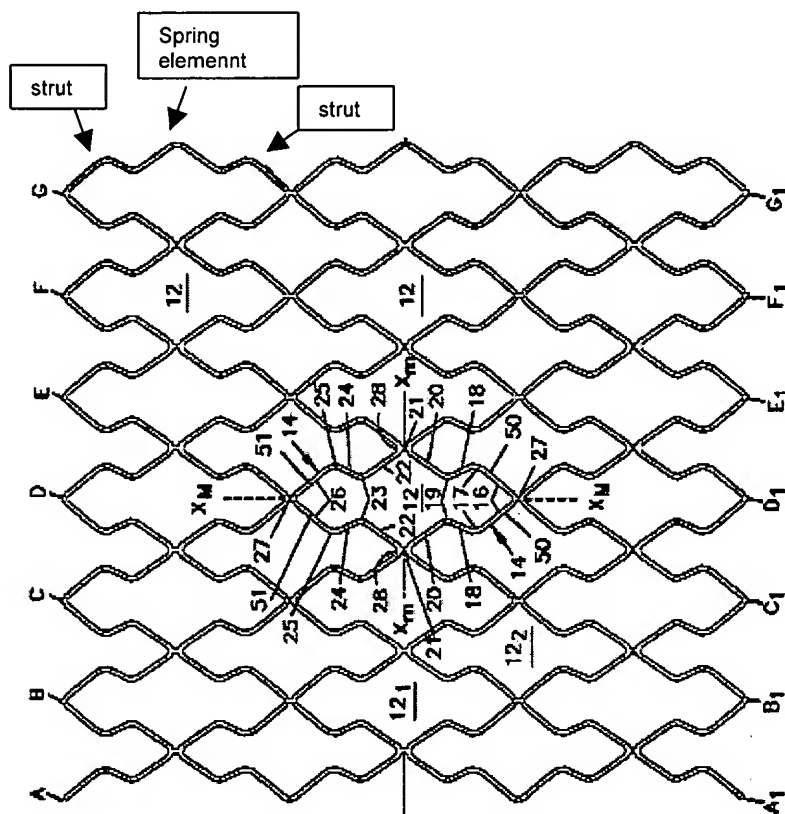
Art Unit: 3738

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

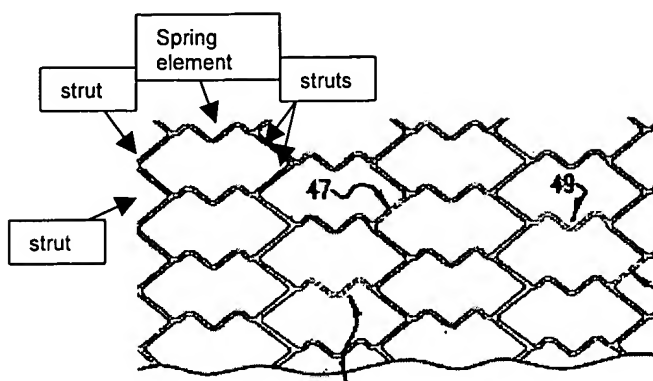
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-26, 29, 31-37, 40, 42-49, 52, 54-60, 63, 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (6132460). Fig. 3 shows a stent with a plurality of cells defining longitudinal rows (B-G) where adjacent longitudinal rows are inversely symmetrical to other longitudinal rows. It can be seen that adjacent cells are directly connected to an adjacent cell and cells are formed of exactly four struts.



The cells have at least four bends extending outside the cell and since claims 29,40,52,63 do not recite only or exactly four bends extend outside the cell, Thompson's cells with more than four bends extending outside the cell meet the limitation. However, Thompson does not disclose the plurality of cells being non-symmetrical about the longitudinal axis. It would have been an obvious matter of design choice to modify the cell symmetry, since applicant has not disclosed that using non-symmetrical structure provides any advantage, or solves a stated problem, or is used for any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the cell pattern taught by Thompson or the claimed cells being non-symmetrical about the longitudinal axis in claim(s) 23-26,29,31-37,40,42-49,52,54-60,63,65-67 because both Thompson's cells and the claimed non-symmetrical cells perform the same function of being highly flexible before and after expansion.

Claims 23-26,28,29,31-37,39,40,42-49,51,52,54-60,62,63,65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roubin et al. (WO 98/34668). Fig. 9 shows a stent with a plurality of cells defining longitudinal rows, wherein adjacent longitudinal rows are inversely symmetrical to other longitudinal rows. It can be seen that adjacent cells are directly connected to an adjacent cell and cells are formed of exactly four struts. The cells have at least four bends extending outside the cell and since claims 29,40,52,63 do not recite only or exactly four bends extend outside the cell, Roubin's cells with more than four bends extending outside the cell meet the limitation.

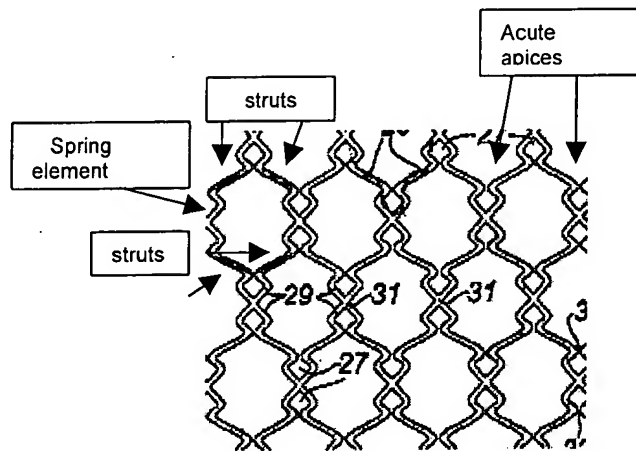


However, Roubin et al. do not disclose the plurality of cells being non-symmetrical about the longitudinal axis. It would have been an obvious matter of design choice to modify the cell symmetry, since applicant has not disclosed that using non-symmetrical structure provides any advantage, or solves a stated problem, or is used for any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the cell pattern taught by Roubin et al. or the claimed cells being non-symmetrical about the longitudinal axis in claim(s) 23-26,28,29,31-37,39,40,42-49,51,52,54-60,62,63,65-67 because both Roubin's cells and the claimed non-symmetrical cells perform the same function of being highly flexible before and after expansion.

Claims 23,24,26,27,29-32,34,35,37,38,40-43,45-50,52-55,57-59, 61,63-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milo (6206911). Fig. 2 shows a stent with a plurality of cells defining longitudinal rows, wherein adjacent longitudinal rows are inversely symmetrical to other longitudinal rows. It can be seen that adjacent cells are directly connected to an adjacent cell and cells are formed of exactly four struts. The cells have at least four bends extending outside the cell and

Art Unit: 3738

since claims 29,40,52,63 do not recite only or exactly four bends extend outside the cell, Milo's cells with more than four bends extending outside the cell meet the limitation.



The cells have at least three bends defining acute apices or internal angles that are less than ninety degrees. Since claims 27,30,38,41,50,53,61,64 do not recite only or exactly three bends with acute angles, Milo's cells having four acute angles meet the claim limitations. However, Milo does not disclose the plurality of cells being non-symmetrical about the longitudinal axis. It would have been an obvious matter of design choice to modify the cell symmetry, since applicant has not disclosed that using non-symmetrical structure provides any advantage, or solves a stated problem, or is used for any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the cell pattern taught by Milo or the claimed cells being non-symmetrical about the longitudinal axis in claim(s) 23,24,26,27,29-32,34,35,37,38,40-43,45-50,52-55,57-59, 61,63-66 because both Milo's cells and the claimed non-symmetrical cells perform the same function of being highly flexible before and after expansion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Pellegrino whose telephone number is (703) 306-5899. The examiner can normally be reached on Monday-Thursday from 8am to 5:30pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott, can be reached at (703) 308-2111. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-2708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Brian E. Pellegrino

6/2/03

TC 3700, AU 3738

*Brian E. Pellegrino*